REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested.

Claims 1-14, 19, 20 and 23-26 are currently pending, wherein claims 1, 10, 19 and 20 are independent. Claims 15-18, 21 and 22 have been canceled. Claims 23-26 have been added. Claims 2, 8 and 9 have been amended. Claim 8 has been amended merely to clarify the language of the claim by correcting a grammatical error. This amendment does not narrow or otherwise limit the scope of the claim, and is not made for any purpose related to patentability. No new matter has been introduced by way of this amendment.

Applicant hereby affirms the election to prosecute the invention of Species I, including claims 1-14, 19 and 20. Applicant reserves the right to file divisional applications directed to the non-elected species.

Applicant notes with appreciation the acknowledgment by the Patent Office of the Information Disclosure Statements submitted on April 2, 2001, and September 10, 2002.

Applicant also notes with appreciation the acceptance by the Patent Office of the drawings filed on August 1, 2001.

Applicant further notes with appreciation the allowance of claims 19 and 20.

Applicant notes with appreciation the characterization of claims 2-6 as being allowable if rewritten in independent form. Applicant hereby amends claim 2 merely to rewrite the claim in independent form, including all of the features of the base claim and any intervening claims. This amendment does not narrow or otherwise limit the scope of claim 2, is not made for any purpose related to patentability, and is fully supported by the present

application. No new matter has been introduced by way of this amendment. It is respectfully submitted that claim 2 is allowable. In addition, as dependent claims 3-6 variously depend from allowable claim 2, it is respectfully submitted that claims 3-6 are allowable.

Applicant hereby adds new dependent claims 23-26, based on original claims 7, 8, 12 and 13, respectively. No new matter has been introduced by way of these new claims. As dependent claims 23-26 variously depend from allowable claim 2, it is respectfully submitted that claims 23-26 are allowable.

In the fifth section of the Office Action, claim 9 is rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. Applicant hereby amends claim 9 to change its dependency to depend from claim 2. This amendment does not narrow or otherwise limit the scope of the claim, and is fully supported by the present application. No new matter has been introduced by way of this amendment. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

As claim 9 depends from allowable claim 2, it is respectfully submitted that claim 9 is allowable.

In the seventh section of the Office Action, claims 1 and 10 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Pitsch et al. (U.S. Patent No. 5,859,906, hereinafter "Pitsch"). This rejection is respectfully traversed.

Exemplary embodiments of the present invention are directed to a technique of applying a gradual monitor access (GMA) to a communications circuit, for example, a digital subscriber loop (DSL), such that the monitor is connected to the communications circuit without any data disruption or data loss. The present invention takes advantage of the slow, but continual, adaptation of equalizer and echo canceller coefficients required to implement

practical band overlapped modems. Although the technique can be applied to a wide variety of elements and apparatuses, according to an exemplary embodiment, a variable photoresistor, a relay, and a resistor circuit that is connected to a monitor amplifier can be used. The relay and resistor circuit are opened, such that no bridging loading of the circuit is presented. A variable photoresistor is then gradually illuminated and a predetermined load is applied when a minimum resistance is reached, with the photoresistor approximating a short. The relay is then closed such that the monitor circuit is now connected, but across the essential short of the photoresistor. Thus, the addition of the monitor circuit in this GMA state does not further increase the loading beyond the predetermined value. Next, the illumination of the photoresistor is gradually removed until the monitor is connected to the communications circuit without disturbance. The removal of the monitor is accomplished in the reverse manner by slowly dropping the photoresistance to a minimum, opening the relay to disconnect the monitor circuit, and then slowly raising the photoresistance to a maximum. [*see* present application, page 10, lines 15-27] Thus, by gradual application, a bridging load of a shared resource is selectively connected, without disruption, onto a circuit utilized by modems capable of at least slow continuous adaptation to transmission path conditions, whereas the same bridging load applied abruptly to this same circuit can be disruptive.

Pitsch discloses a telephone switch hook interface circuit that couples a subscriber telephone to a subscriber telephone line. The interface circuit comprises a source of an off-hook signal, having one state indicating an off-hook condition, and a second state indicating an on-hook condition. A circuit is coupled between the off-hook signal source and the subscriber telephone line, which gradually increases the current drawn from the subscriber telephone line when the off-hook signal indicates an off-hook condition, and gradually

decreases the current drawn from the subscriber telephone line when the off-hook signal indicates an on-hook condition. [*see* Pitsch, Abstract]

According to Pitsch,

> [b]y gradually increasing the current drawn from the subscriber telephone line over a time period from 100 ms to 300 ms when going off-hook and gradually decreasing the current drawn from the subscriber telephone line over a similar time period when going on-hook again, the audible clicks generated by prior art phone interface circuits under these conditions are eliminated. *A subscriber who is talking on the phone may hear a faint noise as the solid state relay K1 gradually goes off-hook and then back on-hook, and the additional load on the subscriber telephone line will cause the volume to drop by around 6 dB.* However, the faint noise and drop in volume is, at worst, barely audible during normal conversation. [Pitsch, column 4, lines 9-21 (emphasis added)]

Thus, according to Pitsch, data disruption *does* occur when the automatic modem attempts to go off-hook and on-hook – a "faint noise" can be heard and the volume drops by approximately 6 dB. Although the noise and drop in volume may be "barely audible," it is respectfully submitted that data disruption does occur and is noticeable by the individuals conversing over the subscriber telephone line. In complete contrast to Pitsch, exemplary embodiments of the present invention gradually apply and disconnect an unavoidable load to a communications circuit *without* data disruption.

In addition, it is respectfully noted that connection of the automatic modem to the subscriber telephone line causes complete data disruption and interruption to the subscriber telephone line. As disclosed by Pitsch, "[i]f a dial tone is detected, the modem is alone on the phone line, and it may begin the process of connecting to the external computer by dialing. If tone dialing is used then dialing proceeds normally." [Pitsch, column 3, lines 54-57] In other words, during operation, the automatic modem usurps the subscriber telephone line for use by

the modem, completely disrupting and preventing any other form of data communication over the subscriber telephone line while the telephone line is in use by the modem. In complete contrast to Pitsch, exemplary embodiments of the present invention can gradually apply and disconnect an unavoidable load to a communication circuit *without* any disruption, interruption or loss to the data being communicated over the communication circuit.

Consequently, it is respectfully submitted that Pitsch does not disclose a method of applying and disconnecting an unavoidable load to a communication circuit that includes the step of gradually applying or disconnecting the unavoidable load to the communications circuit *without* data disruption. Therefore, it is respectfully submitted that Pitsch does not anticipate the subject matter of claim 1.

Independent claim 10 recites features similar to those recited in independent claim 1, and is, therefore, patentably distinguishable over Pitsch for at least those reasons stated above with regard to claim 1.

For at least the foregoing reasons, it is respectfully submitted that Pitsch does not anticipate the subject matter of claims 1 and 10. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the eleventh section of the Office Action, claims 1, 9-11 and 14 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Vantill et al. (U.S. Patent No. 3,708,634, hereinafter "Vantill") in view of Pitsch. This rejection is respectfully traversed.

As discussed previously, it is respectfully submitted that Pitsch does not disclose or suggest a method of applying and disconnecting an unavoidable load to a communication circuit that includes the step of gradually applying or disconnecting the unavoidable load to the communications circuit *without* data disruption.

As acknowledged by the Patent Office, Vantill does not disclose or suggest the step of gradually applying or disconnecting an unavoidable load to a communication circuit. [*see* Office Action, page 4, section 12]. In addition, it is respectfully submitted that Vantill does not disclose or suggest the step of gradually applying or disconnecting an unavoidable load to a communication circuit *without* data disruption. It is respectfully noted that *nowhere* in the Office Action does the Patent Office specify where Vantill discloses or suggests such a feature. [*see* Office Action, page 4, section 12] Thus, Vantill does not address the above-identified deficiencies of Pitsch.

Consequently, it is respectfully submitted that the combination of Pitsch and Vantill does not disclose or suggest a method of applying and disconnecting an unavoidable load to a communication circuit that includes the step of gradually applying or disconnecting the unavoidable load to the communications circuit *without* data disruption. Thus, the combination of Pitsch and Vantill does not render the subject matter of claim 1 obvious.

Furthermore, according to M.P.E.P. § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings." [M.P.E.P. § 2143] In other words, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." [M.P.E.P. § 2143.01] It is respectfully submitted that there is no suggestion or motivation, either implicitly or explicitly, to combine Pitsch and Vantill in the manner

suggested by the Patent Office. It is respectfully submitted that the Patent Office has failed to establish a *prima facie* case of obviousness.

Rather, according to M.P.E.P. § 2142, "[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of obviousness] must be reached on the basis of the facts gleaned from the prior art." Furthermore, according to M.P.E.P. § 2143.01, "[t]he mere fact that references can be . . . modified does not render the resultant combination obvious unless the prior art also suggests the desirability of [such modification]." [citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)] Since the Patent Office has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is wholly and completely founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

Independent claim 10 recites features similar to those recited in independent claim 1, and is, therefore, patentably distinguishable over the combination of Pitsch and Vantill for at least those reasons stated above with regard to claim 1.

Dependent claims 9, 11 and 14 variously depend from independent claims 1 and 10, and are, therefore, patentably distinguishable over the combination of Pitsch and Vantill for at least those reasons stated above with regard to claims 1 and 10.

For at least the foregoing reasons, it is respectfully submitted that the combination of Pitsch and Vantill does not render the subject matter of claims 1, 9-11 and 14 obvious. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the eighteenth section of the Office Action, claims 1, 7 and 10-12 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Aponte et al. (U.S. Patent No. 6,215,856, hereinafter "Aponte") in view of Pitsch. This rejection is respectfully traversed.

As discussed previously, it is respectfully submitted that Pitsch does not disclose or suggest a method of applying and disconnecting an unavoidable load to a communication circuit that includes the step of gradually applying or disconnecting the unavoidable load to the communications circuit *without* data disruption.

As acknowledged by the Patent Office, Aponte does not disclose or suggest the step of gradually applying or disconnecting an unavoidable load to a communication circuit. [*see* Office Action, page 5, section 18].

In addition, according to Aponte, "[t]he apparatus *reduces* spurious signals, spikes, noise and other distortion which occurs when a signal monitoring device is directly connected to a telecommunication line monitoring jack without an intervening switch mechanism." [Aponte, column 1, lines 35-39 (emphasis added)] More particularly,

> [t]o monitor the input signal, the DPDT switch 220 is switched to a first position whereby the terminals 217 of the monitor jack 218 are electrically connected to the input signal lines 204 through resistors 224. The resistors 224 *minimize* the effect on the input signal caused by connecting the monitoring device across the input signal lines 204 when the DPDT switch 220 is switched to the first switch position. [Aponte, column 2, line 64 – column 3, line 3 (emphasis added)]

Thus, Aponte discloses that data disruption *does* occur when the signal-monitoring device is connected to a signal line.

Therefore, it is respectfully submitted that Aponte does not disclose or suggest the step of gradually applying or disconnecting an unavoidable load to a communication circuit *without* data disruption. It is respectfully noted that *nowhere* in the Office Action does the

Patent Office specify where Aponte discloses or suggests such a feature. [*see* Office Action, page 5, section 18] Thus, Aponte does not address the above-identified deficiencies of Pitsch.

Consequently, it is respectfully submitted that the combination of Pitsch and Aponte does not disclose or suggest a method of applying and disconnecting an unavoidable load to a communication circuit that includes the step of gradually applying or disconnecting the unavoidable load to the communications circuit *without* data disruption. Thus, the combination of Pitsch and Aponte does not render the subject matter of claim 1 obvious.

Furthermore, it is respectfully submitted that there is no suggestion or motivation, either implicitly or explicitly, to combine Pitsch and Aponte in the manner suggested by the Patent Office. It is respectfully submitted that the Patent Office has failed to establish a *prima facie* case of obviousness. [*see* M.P.E.P. §§ 2143, 2143.01]

Rather, it is respectfully submitted that the Patent Office is using impermissible hindsight in an attempt to render the claims of the present application obvious. Since the Patent Office has offered no proper support or motivation for combining the references, it is respectfully submitted that the rejection based on obviousness is wholly and completely founded upon "knowledge gleaned only from applicant's disclosure." [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

Independent claim 10 recites features similar to those recited in independent claim 1, and is, therefore, patentably distinguishable over the combination of Pitsch and Aponte for at least those reasons stated above with regard to claim 1.

Dependent claims 7, 11 and 12 variously depend from independent claims 1 and 10, and are, therefore, patentably distinguishable over the combination of Pitsch and Aponte for at least those reasons stated above with regard to claims 1 and 10.

For at least the foregoing reasons, it is respectfully submitted that the combination of Pitsch and Aponte does not render the subject matter of claims 1, 7 and 10-12 obvious. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the twenty-third section of the Office Action, claim 8 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Aponte in view of Pitsch, and further in view of Cubbison, Jr. (U.S. Patent No. 5,504,736, hereinafter "Cubbison"). This rejection is respectfully traversed.

Dependent claim 8 depends from independent claim 1, and is, therefore, patentably distinguishable over the combination of Pitsch, Aponte and Cubbison for at least those reasons stated above with regard to claim 1.

In addition, it is respectfully submitted that Cubbison does not disclose or suggest the step of gradually applying or disconnecting an unavoidable load to a communication circuit *without* data disruption. Thus, Cubbison does not address the above-identified deficiencies of Pitsch and Aponte.

It is respectfully submitted that there is no suggestion or motivation, either implicitly or explicitly, to combine Pitsch, Aponte and Cubbison in the manner suggested by the Patent Office. Therefore, it is respectfully submitted that the Patent Office has failed to establish a *prima facie* case of obviousness. Rather, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

For at least the foregoing reasons, it is respectfully submitted that the combination of Pitsch, Aponte and Cubbison does not render the subject matter of claim 8 obvious. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the twenty-fifth section of the Office Action, claim 13 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Aponte in view of Pitsch, and further in view of admitted prior art. This rejection is respectfully traversed.

Dependent claim 13 variously depends from independent claim 10, and is, therefore, patentably distinguishable over the combination of Pitsch, Aponte and the admitted prior art for at least those reasons stated above with regard to claim 10.

It is respectfully submitted that the admitted prior art does not disclose or suggest the step of gradually applying or disconnecting an unavoidable load to a communication circuit *without* data disruption. Thus, the admitted prior art does not address the above-identified deficiencies of Pitsch and Aponte.

In addition, it is respectfully submitted that there is no suggestion or motivation, either implicitly or explicitly, to combine Pitsch, Aponte and the admitted prior art in the manner suggested by the Patent Office. Therefore, it is respectfully submitted that the Patent Office has failed to establish a *prima facie* case of obviousness. Rather, it is respectfully submitted that the rejection entails hindsight and is, therefore, improper.

For at least the foregoing reasons, it is respectfully submitted that the combination of Pitsch, Aponte and the admitted prior art does not render the subject matter of claim 13 obvious. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

All of the rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and a notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this amendment or the application in general, the Examiner is urged to contact the Applicant's attorney, Andrew J. Bateman, by telephone at (202) 625-3547. All correspondence should continue to be directed to the address given below.

Respectfully submitted,

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